

ABSTRACT

A signal transmission system includes a transmitter and a receiver connected via a transmission line. When a control circuit 103 in the transmitter 200 outputs a test signal to a transmission line 123, a voltage detection section 112 in the receiver 210 determines whether a voltage value on a terminal 115 falls within a given range or not. Based on the result, the control signal generation section 113 generates an instruction as to whether or not to change the current amount of the driving current. The control circuit 103 in the transmitter 100 drives the transmission line 123 with the driving current increased or decreased based on the instruction, and again outputs a test signal. This process is repeated until the voltage on the terminal 115 of the receiver 210 comes into the range. As a result, an optimum output impedance for the control circuit 103 of the transmitter 200 can be obtained. When transmitting a signal via the line, matching is dynamically established between the output impedance of the driving circuit and that of the line, whereby a fast signal transmission can be realized.